IN THE CLAIMS

Please amend claims 1-6, 8, 18-20, 29, and 31-34, and cancel claims 35-37 in accordance with the following listing showing the status of all claims in the application.

1. (Currently Amended) A method for use by a first node on a network in ~~determining the geographic location of~~communicating with a second node on the network, said method comprising the steps of:

the first node on the network receiving a data packet over the network from the second node on the network, the data packet including a network identifier for the second node and a Time-To-Live (TTL) field that has a value, wherein the value of the TTL field for the data packet indicates a maximum additional number of hops that could have been made by the data packet; ~~and~~

the first node sending a probe packet addressed to the network identifier for the second node, wherein the probe packet also includes a TTL field, and wherein an initial value for the TTL field of the probe packet is set based on the value for the TTL field of the data packet;

the first node receiving a response packet from a third node on the network, in response to the probe packet, wherein the first, second and third nodes are different nodes on the network;

the first node obtaining a geographic location for the third node based on node identification information in the response packet; and

the first node transmitting geographic-specific information over the network to the first node based on the geographic location obtained.

2. (Currently Amended) A method according to Claim 1, ~~further comprising steps of: receiving a~~wherein the response ~~to the probe~~ packet, ~~the response including~~ includes a network identifier for a router; and wherein the geographic location for the third node is obtained by comparing the network identifier for the router to a database that includes a geographic location for each of plural network identifiers in order to identify a geographic location for the router.

3. (Currently Amended) A method according to Claim ~~2,~~1, further comprising a step of using the geographic location for marketing purposes.

4. (Currently Amended) A method according to Claim ~~2,~~1, further comprising a step of using the geographic location for compiling demographic information regarding site visitors.

5. (Currently Amended) A method according to Claim ~~2,~~1, further comprising a step of caching the geographic location for use in responding to subsequent data packets from the second node.

6. (Currently Amended) A method according to Claim ~~2,~~1, wherein the geographic location ~~identified for the router~~obtained is identified as a geographic location for the second node.

7. (Original) A method according to Claim 6, further comprising steps of:

obtaining information that is based on the geographic location for the second node; and

transmitting said information from the first node to the second node.

8. (Currently Amended) A method according to Claim 1, further comprising a step of sending a second probe packet prior to receiving athe response ~~from the probe~~ packet.

9. (Original) A method according to Claim 8, wherein the second probe packet has a TTL field, wherein an initial value for the TTL field of the second probe packet is set based on the TTL value of the data packet, and wherein the initial value set in the TTL field for the second probe packet is different than the initial value of the TTL field for the probe packet.

10. (Original) A method according to Claim 1, further comprising a step of sending a number of probe packets having a same initial value in their TTL fields, wherein the number of probe packets is based on at least one of: value of the location information, an expected datagram loss rate, cost of bandwidth, availability of bandwidth, and network congestion control policies.

11. (Original) A method according to Claim 1, further comprising steps of:

estimating a number of hops taken by the data packet based on the TTL field of the data packet; and

sending plural probe packets addressed to the network identifier for the second node, wherein initial TTL values for a majority of the probe packets sent in response to the data packet are clustered around the number of hops estimated in said estimating step.

12. (Original) A method according to Claim 11, wherein the initial TTL values for a majority of the probe packets sent in response to the data packet are set based on the number of hops estimated in said estimating step.

13. (Original) A method according to Claim 11, wherein the plural probe packets are sent without waiting to receive a response from any previously sent probe packet.

14. (Original) A method according to Claim 11, further comprising steps of:

determining, based on responses to the plural probe packets, whether a routing anomaly exists; and

if it is determined that a routing anomaly exists, sending a second set of probe packets.

15. (Original) A method according to Claim 14, wherein it is determined in said determining step that asymmetric routing exists.

16. (Original) A method according to Claim 14, wherein it is determined in said determining step that multi-path routing exists.

17. (Original) A method according to Claim 1, wherein the data packet is a SYN packet requesting initiation of a TCP/IP connection, and wherein the probe packet is sent prior to completion of handshaking required to initiate the TCP/IP connection.

18. (Currently Amended) A method for use by a first node on a network in ~~determining the geographic location of~~communicating with a second node on the network, said method comprising the steps of:

the first node on the network receiving a data packet from the second node on the network, said data packet having arrived at the first node via an inbound path defined by an ordered sequence of routers, and said first and second nodes being different nodes on the network;

the first node estimating a number of hops made by the data packet based on information contained within the data packet; ~~and~~

the first node transmitting probe packets designed, based on said number of hops, to elicit responses from a group of network devices that primarily includes a first few routers on the inbound path;

the first node receiving response packets from said network devices, in response to the probe packet;

the first node obtaining a geographic location for the second node based on node identification information in the response packets; and

the first node transmitting geographic-specific information over the network to the first node based on the geographic location obtained.

19. (Currently Amended) A method according to Claim 18, ~~further comprising steps of: receiving responses to the probe packets, each~~wherein each of the response ~~including~~packets includes a network identifier for a responding network device~~; and~~, and wherein the geographic location for the second node is obtained by comparing the network identifier included in at least one of the ~~responses~~response packets to a database that includes a geographic location for each of plural network identifiers in order to identify a geographic location for the responding network device.

20. (Currently Amended) A method according to Claim 19, ~~further comprising a step of identifying a~~wherein the geographic location for the second node is identified as the geographic location for the router that is closest in number of hops to the second node from among the routers for which a geographic location was identified ~~in said comparing step~~.

21. (Original) A method according to Claim 20, further comprising steps of obtaining information that is based on the geographic location for the second node and transmitting said information from the first node to the second node.

22. (Original) A method according to Claim 18, wherein said estimating step estimates the number of hops that the data packet made based on a value in a Time-To-Live (TTL) field in the data packet.

23. (Original) A method according to Claim 18, wherein each of the probe packets is designed to elicit a response from a network device upon the earlier to occur of: (i) a specified number of hops that is within a range of the number of hops that the data packet made ± N, where N is approximately 5, and (ii) encountering the second node.

24. (Original) A method according to Claim 18, wherein the probe packets are sent concurrently with TCP/IP communications between the first node and the second node.

25. (Original) A method according to Claim 18, wherein the probe packets are sent without waiting to receive a response from any previously sent probe packet.

26. (Original) A method according to Claim 18, wherein a number of the probe packets have a same initial value in their TTL fields, and wherein the number of said probe packets is based on at least one of: value of the location information, an expected datagram loss rate, cost of bandwidth, availability of bandwidth, and network congestion control policies.

27. (Original) A method according to Claim 18, wherein the group of network devices from which responses are elicited consists essentially of a first N routers on the inbound path, where N is approximately 5.

28. (Original) A method according to Claim 18, wherein initial Time-To-Live (TTL) values for a majority of the probe packets sent in response to the data packet are set based on the number of hops estimated in said estimating step.

29. (Currently Amended) A method according to Claim 18, further comprising steps of:

determining, based on ~~responses to the transmitted probe~~response packets, whether a routing anomaly exists; and

if it is determined that a routing anomaly exists, transmitting a second set of probe packets.

30. (Original) A method according to Claim 18, wherein the data packet is a SYN packet requesting initiation of a TCP/IP connection, and wherein

transmission of the probe packets is initiated prior to completion of handshaking required to initiate the TCP/IP connection.

31. (Currently Amended) An apparatus for use by a first node on a network in ~~determining the geographic location of~~communicating with a second node on the network, comprising:

first receiving means for receiving a data packet over the network from the second node on the network, the data packet including a network identifier for the second node and a Time-To-Live (TTL) field that has a value, wherein the value of the TTL field for the data packet indicates a maximum additional number of hops that could have been made by the data packet; ~~and~~

sending means for sending a probe packet addressed to the network identifier for the second node, wherein the probe packet also includes a TTL field, and wherein an initial value for the TTL field of the probe packet is set based on the value for the TTL field of the data packet;

second receiving means for receiving a response packet from a third node on the network, in response to the probe packet, wherein the first, second and third nodes are different nodes on the network;

obtaining means for obtaining a geographic location for the third node based on node identification information in the response packet; and

transmission means for transmitting geographic-specific information over the network to the first node based on the geographic location obtained.

32. (Currently Amended) An apparatus for use by a first node on a network in ~~determining the geographic location of~~communicating with a second node on the network, comprising:

first receiving means for receiving a data packet from the second node on the network, said data packet having arrived at the first node via an inbound path defined by an ordered sequence of routers, and said first and second nodes being different nodes on the network;

estimating means for estimating a number of hops made by the data packet based on information contained within the data packet; ~~and~~

~~transmitting~~first transmission means for transmitting probe packets designed, based on said number of hops, to elicit responses from a group of network devices that primarily includes a first few routers on the inbound path;

second receiving means for receiving response packets from said network devices, in response to the probe packet;

obtaining means for obtaining a geographic location for the second node based on node identification information in the response packets; and

second transmission means for transmitting geographic-specific information over the network to the first node based on the geographic location obtained.

33. (Currently Amended) A computer-readable medium storing computer-executable process steps for use by a first node on a network in ~~determining~~

~~the geographic location of~~communicating with a second node on the network, said process steps comprising steps to:

receive a data packet over the network from the second node on the network, the data packet including a network identifier for the second node and a Time-To-Live (TTL) field that has a value, wherein the value of the TTL field for the data packet indicates a maximum additional number of hops that could have been made by the data packet; ~~and~~

send a probe packet addressed to the network identifier for the second node, wherein the probe packet also includes a TTL field, and wherein an initial value for the TTL field of the probe packet is set based on the value for the TTL field of the data packet;

receive a response packet from a third node on the network, in response to the probe packet, wherein the first, second and third nodes are different nodes on the network;

obtain a geographic location for the third node based on node identification information in the response packet; and

transmit geographic-specific information over the network to the first node based on the geographic location obtained.

34. (Currently Amended) A computer-readable medium storing computer-executable process steps for use by a first node on a network in ~~determining the geographic location of~~communicating with a second node on the network, said process steps comprising steps to:

receive a data packet from the second node on the network, said data packet having arrived at the first node via an inbound path defined by an ordered sequence of routers, and said first and second nodes being different nodes on the network;

estimate a number of hops made by the data packet based on information contained within the data packet; ~~and~~

transmit probe packets designed, based on said number of hops, to elicit responses from a group of network devices that primarily includes a first few routers on the inbound path;

receive response packets from said network devices, in response to the probe packet;

obtain a geographic location for the second node based on node identification information in the response packets; and

transmit geographic-specific information over the network to the first node based on the geographic location obtained.

35. (Canceled)

36. (Canceled)

37. (Canceled)